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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,525	01/23/2004	Yukimasa Nishide	07057.0060	5327

22852 7590 11/15/2007
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EXAMINER

WALKER, KEITH D

ART UNIT	PAPER NUMBER
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1795

MAIL DATE	DELIVERY MODE
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11/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/762,525	NISHIDE, YUKIMASA	
	Examiner	Art Unit	
	Keith Walker	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-22 and 25-34 is/are pending in the application.
- 4a) Of the above claim(s) 10-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9 and 23-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Claims 1-3, 5-22, & 25-34 are pending in the application with Claims 10-22 withdrawn. Claims 1-3, 5-9 & 25-34 are pending examination.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5, 9 & 25-34 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,287,719 (Bailey).

Bailey teaches a secondary battery with first and second cells wound around a hollow core. First and second electrodes of the same polarity are disposed concentrically around a core and are located first and second distances from the core. A third and fourth electrode of a different polarity as the first and second electrode are disposed concentrically around a core and are located third and fourth distances from the core. The third and fourth distances are greater than the first distance. The first and second cells are electrically connected through opposing polarity electrodes (Figs. 3 & 4; 2:25-40, 3:35-45, 4:40-50). The first and second electrodes are offset from each other in their direction of alignment. The housing holds the electrode assembly together and a bead helps secure the assembly for attaching a cap plate (Figs. 1 & 2; 3:30-65).

Regarding claim 25, the core is hollow and therefore is configured to route a cooling fluid there through.

The secondary battery has an insulation sheet and is housed by a cylindrical casing (Figs. 1 & 4). Separators are located between the first and second electrodes and the second distance is greater than the first and the second distance is less than the first by inverting the electrodes (Fig. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6 & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,287,719 (Bailey).

The teachings of Bailey as discussed above are incorporated herein.

Regarding claims 6 & 8, the method of joining the edge portions is a product-by-process claim and even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process (MPEP 2113).

Bailey is silent to joining the first electrode with the second electrode by welding or crimping.

Bailey teaches welding a conductive tab on the positive electrode as a contact terminal (Figs. 5 & 6; 4:25-40). Bailey further teaches using an electrical connector strip to connect the cells together or using just the conductive foils of the electrodes to electrically connect the cells (4:40-5:30). Welding and crimping electrical connections together allow for a more secure connection.

Therefore, it would be obvious to one skilled in the art to weld or crimp together the ends of the electrodes with each other or with the electrical connector strip to form a more secure electrical connection between components.

3. Claims 1 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,923,837 (Longhi) in view of US Publication 2003/0148178 (Kaneta) and US Patent 6,312,848 (Kilb).

Longhi teaches a secondary battery with first and second cells wound around a hollow core. First and second electrodes of the same polarity are disposed concentrically around a core and are located first and second distances from the core. A third and fourth electrode of a different polarity as the first and second electrode are disposed concentrically around a core and are located third and fourth distances from the core. The cells can be combined in any series or parallel configuration for the intended power application (Figs. 1, 4, 7; 2:45-65, 5:5-45, 5:65-6:5).

Longhi is silent to the edge portion of the first cell being joined to the edge portion of the second cell.

Kaneta teaches electrically connecting multiple cells in a number of series and parallel configurations to suit the intended application (Figs. 1, 9-23; [0015, 0027, 0054, 0080-0085]). Connecting multiple cells in this manner decreases the internal resistance and therefore reduces the heat generated during the charge and discharge of the whole battery created by arrangement of each of the cells ([0062-0063]).

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the cell connections of Longhi with the configurations taught by Kaneta to reduce the heat generated by the battery and improve the reliability of the battery.

Longhi is silent to using a ring member.

Kilb teaches using a ring member to electrically attach the edge portions of cells (Fig. 8; 3:10-20). The ring member is one of many known methods of electrically connecting electrodes. Using the ring member forms a mechanically firm connection for the electrodes.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the connection means of Longhi with the ring member of Kilb to form a mechanically firm connection between electrodes.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith Walker whose telephone number is 571-272-3458. The examiner can normally be reached on Mon. - Fri. 8am - 5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

K. Walker

MARK RUTHKOSKY
PRIMARY EXAMINER


11.13.07